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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MISA, JOAN D

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,989	Applicant(s) PIEROTH ET AL.	
	Examiner JOAN D. MISA	Art Unit 3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 18, 20 and 22-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 18, 20 and 22-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 22-23, 25-26, 28, and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kateley (EP 0,278,607) in view of Noel (FR 2,816,802) in view of Praca (3,712,034).

Regarding claim 1:

Kateley discloses a leaf-stripping device, comprising a suction blower (**fig.1, 1 & 2**) and leaf-stripping tools (**3**) arranged in front of the suction blower. However, Kateley does not disclose a leaf-stripping tool comprising a first and a second rotatable cylinder arranged substantially parallel to each other, and wherein the first rotatable cylinder is coupled to a drive motor.

Noel discloses a leaf-stripping device comprising a leaf-stripping tool comprising a first (**fig.2, 1A**) and a second (**1B**) rotatable cylinder arranged substantially parallel to each other, wherein the first rotatable cylinder (**1A**) is coupled to a drive motor (**M1**). Using the rollers help to eliminate projections of particles of jagged sheets and decrease the high rate of wound to the fruit bunches (Refer to the English translation of Noel, pg. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the leaf-stripping tool of Noel for the leaf-stripping tool of Kateley in order to eliminate projections of particles of jagged sheets and decrease the high rate of wound to the bunches and other fruits.

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Furthermore, the combination of Kateley and Noel does not disclose a first rotatable cylinder including peripheral grooves disposed circumferentially thereon.

Praca discloses a similar roller¹ for a harvester wherein a cylinder includes peripheral grooves **(helical grooves 41)** disposed circumferentially thereon which provides areas for air to flow through which would allow the device to provide better suction of the foliage.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the first rotatable cylinder of the leaf-stripping device of the combination above to include peripheral grooves as taught by Praca since such a cylinder with grooves is old and well known in the harvesting art used in collecting plant-material and would allow better suction and thus removal of foliage.

Regarding claim 20:

Since the applicant does not explicitly disclose the size of the fruit, the examiner views that the width and depth of the grooves on the cylinders of Praca corresponds “roughly” to the size of a fruit, dependent on the type and size of the fruit.

Regarding claim 22:

The combination of Kateley, Noel, and Praca discloses the leaf-stripping device of claim 1 above, except wherein the first rotatable cylinder is made from a plastic *so as to have a hydrophobic surface*.

Praca teaches a similar cylinder **(roll 23)** for harvesting wherein a portion **(44)** of the cylinder is made from a plastic having good qualities of adhesion, even under moist working conditions **(col.3, lines 53-59)**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the first rotatable cylinder of the leaf-stripping device of the combination to be made of plastic

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as taught by Praca in order to ensure that foliage adheres to the first cylinder due to its good qualities of adhesion so as to pull the foliage from the plant.

Regarding claim 23:

Wherein the second cylinder (**1B of Noel**) is not coupled to the motor and is spring-loaded against the other of the first cylinder (**pg.3, lines 21-23 and pg. 6, lines 6-10**).

Regarding claim 25

The combination of Kateley, Noel, and Praca discloses the leaf-stripping device of claim 1 except wherein the second cylinder includes an elastic peripheral surface.

Praca discloses a similar roller used in a harvester wherein a portion (**38**) of the roller (**23**) includes an elastic peripheral surface, such as rubber, which is an elastomer, (**col.3, lines 49-52**) to allow some flexibility to the roller in order to minimize wear and tear on both rollers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the second cylinder of the leaf-stripping device of the combination above to include an elastic peripheral surface, such as rubber, in order to allow some flexibility to the cylinders to minimize wear and tear on both cylinders.

Regarding claim 26:

Praca disclosed above that the peripheral surface of the second cylinder includes an elastomer.

Regarding claim 28:

Wherein the first and second cylinders (**1A/1B of Noel**) are aligned substantially vertically and are arranged in a common flow channel with the suction blower (**1 & 2 of Kateley**).

Regarding claim 32:

The combination of Kateley, Noel and Praca discloses the leaf-stripping device of claim 1 above, except for a plurality of pairs of first and second cylinders, arranged one behind the other. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a plurality of pairs of first and second cylinders to the leaf-stripping device, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *In re Harza*, 124 USPQ 378. See MPEP 2144.04(VI). Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to arrange the plurality of pairs of first and second cylinders one behind the other, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. See MPEP 2144.04(VI).

Regarding claims 33 and 34:

The leaf-stripping device further comprising means for mounting the device (**fig.3 and col.3, line 34-col.4, line 10 of Kateley**) on the front of a vehicle (**fig. 3 & 6, tractor 31**), per claim 3; wherein the vehicle is a tractor (**31 of Kateley**), per claim 34.

Regarding claim 35:

The combination of Kateley, Noel, and Praca disclose a leaf-stripping device, comprising

- a suction blower (**fig.1, 1 & 2 of Kateley**) and leaf-stripping tools (**of Noel**) arranged in front of the suction blower;
- wherein the leaf-stripping tools include a first rotatable cylinder (**fig.2, 1A**) and a second rotatable cylinder (**1B**), wherein the first and second rotatable cylinders are arranged

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substantially parallel to each other, and wherein the first rotatable cylinders is coupled to a drive motor (**M1**); and

- wherein the first and second cylinders are spanned partially by a cover plate (**5 of Kateley**) arranged on a side facing the foliage that has a cutout (**11**) with an entry incline for the foliage.

Regarding claim 36:

The combination of Kateley, Noel, and Praca discloses a leaf-stripping device, comprising:

- a suction blower (**fig.1, 1 & 2 of Kateley**) and leaf-stripping tools (**of Noel**) arranged in front of the suction blower,
- wherein the leaf-stripping tools include a first rotatable cylinder (**fig.2, 1A**) and a second rotatable cylinder (**1B**), wherein the first and second rotatable cylinders are arranged substantially parallel to each other, and wherein the first rotatable cylinder is coupled to a drive motor;
- and wherein the second rotatable cylinder includes an elastic peripheral surface (**Praca; see claim 25**).

Regarding claim 37

The combination of Kateley, Noel, and Praca also discloses the leaf-stripping device, wherein the first rotatable cylinder (**1A of Noel**) is made from a plastic (**Praca; see claim 25**).

Claims 18, 24, and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kateley ('607) in view of Noel ('802) in view of Praca ('034) as applied to claim 1 above, and further in view of Bou (FR 2,417,932).

Regarding claim 18:

The combination of Kateley, Noel, and Praca discloses the leaf-stripping device of claim 1 above, except wherein the cylinders are designed so that foliage is separated from a plant, and fruits of the plant are not damaged.

Bou discloses a leaf-stripping device wherein the cylinders are designed so that the foliage is separated from a plant, and fruits of the plants are not damaged, by providing a second cylinder **(18)** with a smaller diameter than that of the first cylinder **(11)** (pg.2, lines 1-4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to design the cylinders of the combination above to have a second cylinder with a smaller diameter than the first cylinder as taught by Bou in order to prevent the fruits from being damaged and still separate and strip the foliage from the plant.

Regarding claim 24:

The combination of Kateley, Noel, and Praca discloses the leaf-stripping device of claim 23 above; except the combination does not specify wherein the second cylinder is supported in a lever mechanism and wherein pressure springs bear against the lever mechanism to bias the second cylinder toward the first cylinder.

Bou discloses a leaf-stripping device wherein a second cylinder **(f18)** is supported in a lever mechanism, wherein pressure springs **(20)** bear against the lever mechanism to bias the second cylinder toward the first cylinder **(11)** in order to provide means for rotating the second cylinder without the use of another motor thus simplifying the device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the leaf-stripping device of the combination above to use a lever mechanism to support the

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second cylinder as taught by Bou in order to provide means for rotating the second cylinder without the use of second motor and thus simplifying the device, overall.

Regarding claim 29:

Bou previously disclosed in claim 18 the leaf-stripping device of claim 23 above wherein a diameter of the second cylinder **(18)** is smaller than the diameter of the first cylinder **(11)**.

Regarding claim 30:

The combination of Kateley, Noel, Praca, and Bou further discloses wherein the first **(1A of Noel)** and second **(1B)** cylinders are spanned partially by a cover plate **(guide plates 5 of Kateley)** arranged on a side facing the foliage that has a cutout **(aperture 11)** with an entry incline for the foliage. “The guide plates (5) is to partially align the plant material with the cutting apparatus in advance of it as the cutter moves along the foliage to be cut, thus making the passage easier and further reducing the chances of vine wood being damaged by passing straight into the cutout blades” **(col.2, line 52-col.3, line 3)**.

Regarding claim 31:

The combination of Kateley, Noel, Praca, and Bou further discloses wherein the cover plate **(5 of Kateley)** is fastened to a flow channel on a side facing the foliage.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kateley ('607) in view of Noel ('802) in view of Praca ('034) as applied to claim 1 above, and further in view of Pellenc et al. (WO 01/87047).

Regarding claim 27:

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The combination of Kateley, Noel and Praca discloses the leaf-stripping device of claim 1, except wherein the second cylinder has a wiper mechanism for scraping foliage extending over its length.

Pellenc et al. discloses a leaf-stripping device wherein a cylinder has a similar wiper mechanism **(12)** extending over its length, which is capable of scraping foliage from the cylinder's surface when the foliage becomes stuck onto the surface **(pg.13, line 29-pg.14, line 24)**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the leaf-stripping device of the combination above to include a wiper mechanism **(12)** similar to that of Pellenc et al. in order to provide means for scraping foliage from the cylinder's surface when the foliage becomes stuck onto the surface and thus provide a more efficient cylinder.

Response to Arguments

Examiner acknowledges Applicant's amendment to the awkward phrasing of claims 21 and 24, and thus withdraws the objection.

Regarding Applicant's amendment to claim 27 to change "foliage stripper" to "wiper mechanism for scraping foliage" due to an error in the translation of the application, the Examiner acknowledges the correction and has therefore written the rejection based on the correction to claim 27.

Regarding Applicant's amendment to the rejection of claims 22 and 24 under U.S.C. 112, Examiner acknowledges the amendment and thus withdraws the rejection.

Applicant's arguments with respect to the rejections of claims 1 and its dependent claims under Pellenc et al. ('047) and/or Bou ('932) and/or Praca ('034) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, new grounds of rejections are made in view of Kateley ('607), Noel ('802), and Praca ('034) and Bou ('932).

Furthermore, according to the new grounds of rejections, the cover plate (5) recited in claim 30 is disclosed by Kateley. With regards to Applicant's argument that Praca's helical grooves are not

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“peripheral grooves”, the examiner notes that the helical grooves of Praca is still considered “peripheral grooves”, since, according to the Merriam-Webster dictionary online ¹, the word "periphery" is defined as “the external boundary or surface of a body” and the grooves of Praca is formed on the external surface of the cylinder.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rice (5,511,365) discloses a roller made of plastic with peripheral grooves used on a harvesting machine. Karlsson discloses a roll construction made of an

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOAN D. MISA whose telephone number is (571)270-3745. The examiner can normally be reached on Monday - Friday, 8:00am - 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Will can be reached on (571) 272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

¹ periphery. (2008). In *Merriam-Webster Online Dictionary*.

Retrieved May 14, 2008, from <http://www.merriam-webster.com/dictionary/periphery>

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas B Will/
Supervisory Patent Examiner
Art Unit 3671

JDM
5/13/08